ABSTRACT

A method for spectrally compressing data sets enables the efficient analysis of very large multivariate images. The spectral compression algorithm uses a factored representation of the data that can be obtained from Principal

5   Components Analysis or other factorization technique. Furthermore, a block algorithm can be used for performing common operations more efficiently. An image analysis can be performed on the factored representation of the data, using only the most significant factors. The spectral compression algorithm can be combined with a spatial compression algorithm to provide further

10   computational efficiencies.